

0590

0814

CRF Errors Corrected by the CRF Systems Branch

OIFE

Serial Number:

05/09/920394

(2)

CRF Processing Date: 10/09/01

Edited by: mt

Verified by: \_\_\_\_\_ (ST)

- ☐ Changed a file from non-ASCII to ASCII
- ☐ Changed the margins in cases where the sequence text was "wrapped" down to the next line.
- ☐ Edited a formal error in the Current Application Data section, specifically: # 2  
**ENTERED**
- ☐ Edited the Current Application Data section with the actual current number. The number inputted by the applicant was ☐ the prior application data; or ☐ other \_\_\_\_\_
- ☐ Added the mandatory heading and subheadings for "Current Application Data".
- ☐ Edited the "Number of Sequences" field. The applicant spelled out a number instead of using an integer.
- ☐ Changed the spelling of a mandatory field (the headings or subheadings), specifically: \_\_\_\_\_
- ☐ Corrected the SEQ ID NO when obviously incorrect. The sequence numbers that were edited were: \_\_\_\_\_
- ☐ Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited: \_\_\_\_\_
- ☐ Corrected subheading placement. All responses must be on the same line as each subheading. If the applicant placed a response below the subheading, this was moved to its appropriate place.
- ☐ Inserted colons after headings/subheadings. Headings edited included: \_\_\_\_\_
- ☐ Deleted extra, invalid, headings used by an applicant, specifically: \_\_\_\_\_
- ☒ Deleted: ☒ non-ASCII "garbage" at the beginning/end of files; ☐ secretary initials/lastname at end of file; ☐ page numbers throughout text; ☐ other invalid text, such as \_\_\_\_\_
- ☐ Inserted mandatory headings, specifically: \_\_\_\_\_
- ☐ Corrected an obvious error in the response, specifically: \_\_\_\_\_
- ☐ Edited identifiers where upper case is used but lower case is required, or vice versa.
- ☐ Corrected an error in the Number of Sequences field, specifically: \_\_\_\_\_
- ☐ A "Hard Page Break" code was inserted by the applicant. All occurrences had to be deleted.
- ☐ Deleted ending stop codon in amino acid sequences and adjusted the "(A)Length:" field accordingly (error due to a PatentIn bug). Sequences corrected: \_\_\_\_\_
- ☐ Other: \_\_\_\_\_

\*Examiner: The above corrections must be communicated to the applicant in the first Office Action. DO NOT send a copy of this form.

3/1/95

OIPE

## RAW SEQUENCE LISTING

DATE: 10/09/2001

PATENT APPLICATION: US/09/920,394

TIME: 09:28:11

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

4 &lt;110&gt; APPLICANT: Rosanne M. Crooke

5 Mark J. Graham

6 Kristina M. Lemonidis

8 &lt;120&gt; TITLE OF INVENTION: ANTISENSE MODULATION OF ACYL COENZYME A CHOLESTEROL

ACYLTRANSFERASE-1

9 EXPRESSION

11 &lt;130&gt; FILE REFERENCE: ISPH-0589

C--&gt; 13 &lt;140&gt; CURRENT APPLICATION NUMBER: US/09/920,394

C--&gt; 13 &lt;141&gt; CURRENT FILING DATE: 2001-08-01

13 &lt;160&gt; NUMBER OF SEQ ID NOS: 62

15 &lt;210&gt; SEQ ID NO: 1

16 &lt;211&gt; LENGTH: 20

17 &lt;212&gt; TYPE: DNA

18 &lt;213&gt; ORGANISM: Artificial Sequence ✓

20 &lt;220&gt; FEATURE:

21 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide ✓

23 &lt;400&gt; SEQUENCE: 1

24 tccgtcatcg ctccctcaggg

20

26 &lt;210&gt; SEQ ID NO: 2

27 &lt;211&gt; LENGTH: 20

28 &lt;212&gt; TYPE: DNA

29 &lt;213&gt; ORGANISM: Artificial Sequence ✓

31 &lt;220&gt; FEATURE:

32 &lt;223&gt; OTHER INFORMATION: Antisense Oligonucleotide ✓

34 &lt;400&gt; SEQUENCE: 2

35 atgcattctg cccccaagga

20

37 &lt;210&gt; SEQ ID NO: 3

38 &lt;211&gt; LENGTH: 1767

39 &lt;212&gt; TYPE: DNA

40 &lt;213&gt; ORGANISM: Homo sapiens

42 &lt;220&gt; FEATURE:

43 &lt;221&gt; NAME/KEY: CDS

44 &lt;222&gt; LOCATION: (28)...(1734)

46 &lt;400&gt; SEQUENCE: 3

47 ctaaagcgag aactgtcgcc cttcacg atg tgg ctc cgt gcc ttt atc ctg gcc 54

48 Met Trp Leu Arg Ala Phe Ile Leu Ala

49 1 5

51 act ctc tct gct tcc gcg gct tgg ggg gca cat ccg tcc tcg cca cct 102

52 Thr Leu Ser Ala Ser Ala Ala Trp Gly Ala His Pro Ser Ser Pro Pro

53 10 15 20 25

55 gtg gtg gac acc gtg cat ggc aaa gtg ctg ggg aag ttc gtc agc tta 150

56 Val Val Asp Thr Val His Gly Lys Val Leu Gly Lys Phe Val Ser Leu

57 30 35 40

59 gaa gga ttt gca cag cct gtg gcc att ttc ctg gga atc cct ttt gcc 198

60 Glu Gly Phe Ala Gln Pro Val Ala Ile Phe Leu Gly Ile Pro Phe Ala

61 45 50 55

63 aag ccg cct ctt gga ccc ctg agg ttt act cca ccg cag cct gca gaa 246

64 Lys Pro Pro Leu Gly Pro Leu Arg Phe Thr Pro Pro Gln Pro Ala Glu

ENTERED

## RAW SEQUENCE LISTING

DATE: 10/09/2001

PATENT APPLICATION: US/09/920,394

TIME: 09:28:11

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

65	60	65	70	
67	cca tgg agc ttt gtg aag aat gcc acc tcg tac cct cct atg tgc acc	294		
68	Pro Trp Ser Phe Val Lys Asn Ala Thr Ser Tyr Pro Pro Met Cys Thr			
69	75	80	85	
71	caa gat ccc aag gcg ggg cag tta ctc tca gag cta ttt aca aac cga	342		
72	Gln Asp Pro Lys Ala Gly Gln Leu Leu Ser Glu Leu Phe Thr Asn Arg			
73	90	95	100	105
75	aag gag aac att cct ctc aag ctt tct gaa gac tgt ctt tac ctc aat	390		
76	Lys Glu Asn Ile Pro Leu Lys Leu Ser Glu Asp Cys Leu Tyr Leu Asn			
77	110	115	120	
79	att tac act cct gct gac ttg acc aag aaa aac agg ctg ccg gtg atg	438		
80	Ile Tyr Thr Pro Ala Asp Leu Thr Lys Lys Asn Arg Leu Pro Val Met			
81	125	130	135	
83	gtg tgg atc cac gga ggg ggg ctg atg gtg ggt gcg gca tca acc tat	486		
84	Val Trp Ile His Gly Gly Gly Leu Met Val Gly Ala Ala Ser Thr Tyr			
85	140	145	150	
87	gat ggg ctg gcc ctt gct gcc cat gaa aac gtg gtg gtg gtg acc att	534		
88	Asp Gly Leu Ala Leu Ala Ala His Glu Asn Val Val Val Val Thr Ile			
89	155	160	165	
91	caa tat cgc ctg ggc atc tgg gga ttc ttc agc aca ggg gat gaa cac	582		
92	Gln Tyr Arg Leu Gly Ile Trp Gly Phe Phe Ser Thr Gly Asp Glu His			
93	170	175	180	185
95	agc cgg ggg aac tgg ggt cac ctg gac cag gtg gct gcc ctg cgc tgg	630		
96	Ser Arg Gly Asn Trp Gly His Leu Asp Gln Val Ala Ala Leu Arg Trp			
97	190	195	200	
99	gtc cag gac aac att gcc agc ttt gga ggg aac cca ggc tct gtg acc	678		
100	Val Gln Asp Asn Ile Ala Ser Phe Gly Gly Asn Pro Gly Ser Val Thr			
101	205	210	215	
103	atc ttt gga gag tca gcg gga gga gaa agt gtc tct gtt ctt gtt ttg	726		
104	Ile Phe Gly Glu Ser Ala Gly Gly Glu Ser Val Ser Val Leu Val Leu			
105	220	225	230	
107	tct cca ttg gcc aag aac ctc ttc cac cgg gcc att tct gag agt ggc	774		
108	Ser Pro Leu Ala Lys Asn Leu Phe His Arg Ala Ile Ser Glu Ser Gly			
109	235	240	245	
111	gtg gcc ctc act tct gtt ctg gtg aag aaa ggt gat gtc aag ccc ttg	822		
112	Val Ala Leu Thr Ser Val Leu Val Lys Lys Gly Asp Val Lys Pro Leu			
113	250	255	260	265
115	gct gag caa att gct atc act gct ggg tgc aaa acc acc acc tct gct	870		
116	Ala Glu Gln Ile Ala Ile Thr Ala Gly Cys Lys Thr Thr Thr Ser Ala			
117	270	275	280	
119	gtc atg gtt cac tgc ctg cga cag aag acg gaa gag gag ctc ttg gag	918		
120	Val Met Val His Cys Leu Arg Gln Lys Thr Glu Glu Glu Leu Leu Glu			
121	285	290	295	
123	acg aca ttg aaa atg aaa ttc tta tct ctg gac tta cag gga gac ccc	966		
124	Thr Thr Leu Lys Met Lys Phe Leu Ser Leu Asp Leu Gln Gly Asp Pro			
125	300	305	310	
127	aga gag agt caa ccc ctt ctg ggc act gtg att gat ggg atg ctg ctg	1014		
128	Arg Glu Ser Gln Pro Leu Leu Gly Thr Val Ile Asp Gly Met Leu Leu			
129	315	320	325	

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Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

```

131 ctg aaa aca cct gaa gag ctt caa gct gaa agg aat ttc cac act gtc 1062
132 Leu Lys Thr Pro Glu Glu Leu Gln Ala Glu Arg Asn Phe His Thr Val
133 330 335 340 345
135 ccc tac atg gtc gga att aac aag cag gag ttt ggc tgg ttg att cca 1110
136 Pro Tyr Met Val Gly Ile Asn Lys Gln Glu Phe Gly Trp Leu Ile Pro
137 350 355 360
139 atg cag ttg atg agc tat cca ctc tcc gaa ggg caa ctg gac cag aag 1158
140 Met Gln Leu Met Ser Tyr Pro Leu Ser Glu Gly Gln Leu Asp Gln Lys
141 365 370 375
143 aca gcc atg tca ctc ctg tgg aag tcc tat ccc ctt gtt tgc att gct 1206
144 Thr Ala Met Ser Leu Leu Trp Lys Ser Tyr Pro Leu Val Cys Ile Ala
145 380 385 390
147 aag gaa ctg att cca gaa gcc act gag aaa tac tta gga gga aca gac 1254
148 Lys Glu Leu Ile Pro Glu Ala Thr Glu Lys Tyr Leu Gly Gly Thr Asp
149 395 400 405
151 gac act gtc aaa aag aaa gac ctg ttc ctg gac ttg ata gca gat gtg 1302
152 Asp Thr Val Lys Lys Lys Asp Leu Phe Leu Asp Leu Ile Ala Asp Val
153 410 415 420 425
155 atg ttt ggt gtc cca tct gtg att gtg gcc cgg aac cac aga gat gct 1350
156 Met Phe Gly Val Pro Ser Val Ile Val Ala Arg Asn His Arg Asp Ala
157 430 435 440
159 gga gca ccc acc tac atg tat gag ttt cag tac cgt cca agc ttc tca 1398
160 Gly Ala Pro Thr Tyr Met Tyr Glu Phe Gln Tyr Arg Pro Ser Phe Ser
161 445 450 455
163 tca gac atg aaa ccc aag acg gtg ata gga gac cac ggg gat gag ctc 1446
164 Ser Asp Met Lys Pro Lys Thr Val Ile Gly Asp His Gly Asp Glu Leu
165 460 465 470
167 ttc tcc gtc ttt ggg gcc cca ttt tta aaa gag ggt gcc tca gaa gag 1494
168 Phe Ser Val Phe Gly Ala Pro Phe Leu Lys Glu Gly Ala Ser Glu Glu
169 475 480 485
171 gag atc aga ctt agc aag atg gtg atg aaa ttc tgg gcc aac ttt gct 1542
172 Glu Ile Arg Leu Ser Lys Met Val Met Lys Phe Trp Ala Asn Phe Ala
173 490 495 500 505
175 cgc aat gga aac ccc aat ggg gaa ggg ctg ccc cac tgg cca gag tac 1590
176 Arg Asn Gly Asn Pro Asn Gly Glu Gly Leu Pro His Trp Pro Glu Tyr
177 510 515 520
179 aac cag aag gaa ggg tat ctg cag att ggt gcc aac acc cag gcg gcc 1638
180 Asn Gln Lys Glu Gly Tyr Leu Gln Ile Gly Ala Asn Thr Gln Ala Ala
181 525 530 535
183 cag aag ctg aag gac aaa gaa gta gct ttc tgg acc aac ctc ttt gcc 1686
184 Gln Lys Leu Lys Asp Lys Glu Val Ala Phe Trp Thr Asn Leu Phe Ala
185 540 545 550
187 aag aag gca gtg gag aag cca ccc cag aca gaa cac ata gag ctg tga 1734
188 Lys Lys Ala Val Glu Lys Pro Pro Gln Thr Glu His Ile Glu Leu
189 555 560 565
191 atgaagatcc agccggcctt gggagcctgg agg 1767
195 <210> SEQ ID NO: 4
196 <211> LENGTH: 20
197 <212> TYPE: DNA

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## RAW SEQUENCE LISTING

DATE: 10/09/2001

PATENT APPLICATION: US/09/920,394

TIME: 09:28:11

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

198 <213> ORGANISM: Artificial Sequence ✓  
 200 <220> FEATURE:  
 201 <223> OTHER INFORMATION: PCR Primer ✓  
 203 <400> SEQUENCE: 4  
 204 atgggtgatga aattctgggc 20  
 206 <210> SEQ ID NO: 5  
 207 <211> LENGTH: 20  
 208 <212> TYPE: DNA  
 209 <213> ORGANISM: Artificial Sequence ✓  
 211 <220> FEATURE:  
 212 <223> OTHER INFORMATION: PCR Primer ✓  
 214 <400> SEQUENCE: 5  
 215 cttctccact gccttcttgg 20  
 217 <210> SEQ ID NO: 6  
 218 <211> LENGTH: 50  
 219 <212> TYPE: DNA  
 220 <213> ORGANISM: Artificial Sequence ✓  
 222 <220> FEATURE:  
 223 <223> OTHER INFORMATION: PCR Probe ✓  
 225 <400> SEQUENCE: 6  
 226 aagggtatct gcagattggt gccaacacccc aggcggccca gaagctgaag 50  
 228 <210> SEQ ID NO: 7  
 229 <211> LENGTH: 19  
 230 <212> TYPE: DNA  
 231 <213> ORGANISM: Artificial Sequence ✓  
 233 <220> FEATURE:  
 234 <223> OTHER INFORMATION: PCR Primer ✓  
 236 <400> SEQUENCE: 7  
 237 gaaggtgaag gtcggagtc 19  
 239 <210> SEQ ID NO: 8  
 240 <211> LENGTH: 20  
 241 <212> TYPE: DNA  
 242 <213> ORGANISM: Artificial Sequence ✓  
 244 <220> FEATURE:  
 245 <223> OTHER INFORMATION: PCR Primer ✓  
 247 <400> SEQUENCE: 8  
 248 gaagatggtg atgggatttc 20  
 250 <210> SEQ ID NO: 9  
 251 <211> LENGTH: 20  
 252 <212> TYPE: DNA  
 253 <213> ORGANISM: Artificial Sequence ✓  
 255 <220> FEATURE:  
 256 <223> OTHER INFORMATION: PCR Probe ✓  
 258 <400> SEQUENCE: 9  
 259 caagcttccc gttctcagcc 20  
 261 <210> SEQ ID NO: 10  
 262 <211> LENGTH: 2022  
 263 <212> TYPE: DNA  
 264 <213> ORGANISM: Mus musculus

## RAW SEQUENCE LISTING

DATE: 10/09/2001

PATENT APPLICATION: US/09/920,394

TIME: 09:28:11

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

266 &lt;220&gt; FEATURE:

267 &lt;221&gt; NAME/KEY: CDS

268 &lt;222&gt; LOCATION: (129)...(1817)

270 &lt;400&gt; SEQUENCE: 10

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271 aatttcctcgt atcatacaat tgattgagag aaatttgctg gtaccctcca ggagtggggc 60
272 aggatcagtg tgcccccttt gtcacaggct ggagacctcc ctgtcctgca aacctgtagc 120
273 ctcctacc atg tgc ctc tct gct ctg atc ctg gtg tca ctt gca gca ttc 170
274      Met Cys Leu Ser Ala Leu Ile Leu Val Ser Leu Ala Ala Phe
275      1          5          10
277 aca gca ggg gca gga cat cca tcc tca cca ccc atg gtg gac acc gtg 218
278 Thr Ala Gly Ala Gly His Pro Ser Ser Pro Met Val Asp Thr Val
279 15          20          25          30
281 caa ggc aaa gtc ctg ggg aag tac atc agc tta gaa gga ttc aca cag 266
282 Gln Gly Lys Val Leu Gly Lys Tyr Ile Ser Leu Glu Gly Phe Thr Gln
283      35          40          45
285 cct gtg gcc gtc ttc ctg gga gtc ccc ttt gcc aag ccc cct ctt gga 314
286 Pro Val Ala Val Phe Leu Gly Val Pro Phe Ala Lys Pro Pro Leu Gly
287      50          55          60
289 tct ctg agg ttt gct cca cca cag cct gca gag ccc tgg agc tcc gtg 362
290 Ser Leu Arg Phe Ala Pro Pro Gln Pro Ala Glu Pro Trp Ser Ser Val
291      65          70          75
293 aag aat gcc acc tcc tac cct cct atg tgc ttc caa gac cca gtg aca 410
294 Lys Asn Ala Thr Ser Tyr Pro Pro Met Cys Phe Gln Asp Pro Val Thr
295      80          85          90
297 ggg caa ata gtc aat gac ctc cta act aac aga aag gag aaa att cct 458
298 Gly Gln Ile Val Asn Asp Leu Leu Thr Asn Arg Lys Glu Lys Ile Pro
299 95          100          105          110
301 ctc cag ttt tct gaa gac tgt ctc tac ctg aat att tac act cca gct 506
302 Leu Gln Phe Ser Glu Asp Cys Leu Tyr Leu Asn Ile Tyr Thr Pro Ala
303      115          120          125
305 gac ttg aca aag agt gac aga ttg cca gtg atg gtg tgg atc cat gga 554
306 Asp Leu Thr Lys Ser Asp Arg Leu Pro Val Met Val Trp Ile His Gly
307      130          135          140
309 ggt gga cta gtg tta ggt ggg gca tca acc tat gat gga ctg gtc ctg 602
310 Gly Gly Leu Val Leu Gly Gly Ala Ser Thr Tyr Asp Gly Leu Val Leu
311      145          150          155
313 tct acg cat gaa aat gtc gtg gtg gtg gtc atc caa tac cgt ttg ggc 650
314 Ser Thr His Glu Asn Val Val Val Val Val Ile Gln Tyr Arg Leu Gly
315      160          165          170
317 atc tgg gga ttc ttc agc aca ggg gat gaa cac agc agg ggg aac tgg 698
318 Ile Trp Gly Phe Phe Ser Thr Gly Asp Glu His Ser Arg Gly Asn Trp
319 175          180          185          190
321 ggt cac ttg gac cag gtg gct gca cta cac tgg gtc cag gac aac att 746
322 Gly His Leu Asp Gln Val Ala Ala Leu His Trp Val Gln Asp Asn Ile
323      195          200          205
325 gct aaa ttt gga ggt gac cca ggc tct gtg acc atc ttt gga gag tca 794
326 Ala Lys Phe Gly Gly Asp Pro Gly Ser Val Thr Ile Phe Gly Glu Ser
327      210          215          220
329 gca gga ggt gaa agt gtc tct gtt ctt gtg ttg tct ccc ttg gcc aag 842

```

VERIFICATION SUMMARY

DATE: 10/09/2001

PATENT APPLICATION: US/09/920,394

TIME: 09:28:12

Input Set : A:\PTO.MH.txt

Output Set: N:\CRF3\10092001\I920394.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

OIPE

## RAW SEQUENCE LISTING

DATE: 08/10/2001

PATENT APPLICATION: US/09/920,394

TIME: 07:47:47

Input Set : A:\ES.txt

Output Set: N:\CRF3\08102001\I920394.raw

4 <110> APPLICANT: Rosanne M. Crooke  
5 Mark J. Graham  
6 Kristina M. Lemonidis  
8 <120> TITLE OF INVENTION: ANTISENSE MODULATION OF ACYL COENZYME A CHOLESTEROL  
ACYLTRANSFERASE-1  
9 EXPRESSION  
11 <130> FILE REFERENCE: ISPH-0589  
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/920,394  
C--> 13 <141> CURRENT FILING DATE: 2001-08-01  
13 <160> NUMBER OF SEQ ID NOS: 62

## ERRORED SEQUENCES

982 <210> SEQ ID NO: 62  
983 <211> LENGTH: 20  
984 <212> TYPE: DNA  
985 <213> ORGANISM: Artificial Sequence  
987 <220> FEATURE:  
988 <223> OTHER INFORMATION: Antisense Oligonucleotide  
990 <400> SEQUENCE: 62  
991 ttgagtccac atgtgcaaat

20

E--> 993 1  
E--> 996 18

Edit Nm ASCII text



VERIFICATION SUMMARY

PATENT APPLICATION: US/09/920,394

DATE: 08/10/2001

TIME: 07:47:48

Input Set : A:\ES.txt

Output Set: N:\CRF3\08102001\I920394.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No

L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:993 M:254 E: No. of Bases conflict, LENGTH:Input:1 Counted:20 SEQ:62

M:254 Repeated in SeqNo=62

**STATISTICS SUMMARY**

PATENT APPLICATION: US/09/920,394

DATE: 08/10/2001

TIME: 07:47:48

Input Set : A:\ES.txt

Output Set: N:\CRF3\08102001\I920394.raw

Application Serial Number: US/09/920,394

Alpha or Numeric: Numeric

Application Class:

Application File Date: 08-01-2001

Art Unit: OIPE

Software Application:

Total Number of Sequences: 62

Total Nucleotides: 5032

Total Amino Acids: 0

Number of Errors: 2

Number of Warnings: 0

Number of Corrections: 2

**MESSAGE SUMMARY**

254 E: 2 (No. of Bases conflict)

270 C: 1 (Current Application Number differs)

271 C: 1 (Current Filing Date differs)